

REMARKS

Claims 5-10 are presented for reconsideration.

In the Office Action, original claims 1-3 were rejected under 35 USC 103 as being unpatentable over JP 07-211530 in view of Humphrey et al (U.S. Patent 5,201,956); original claim 4 was rejected on the Japanese Reference in view of Humphrey et al in further view of Hatch (U.S. Patent 4,960,050).

By this amendment, original claims 1-4 have been cancelled and claims 5-10 have been added and further highlight the invention over the prior art.

The invention is directed to coating of amorphous or nanocrystalline cores in a drum process. Humphrey et al discloses a drum process, but not amorphous or nanocrystalline cores. However, at the time the Humphrey et al patent was filed, amorphous and nanocrystalline cores were commonly known. Nevertheless, Humphrey et al is silent about such cores. In contrast, the Japanese Reference discloses coated amorphous and nanocrystalline cores, but does not disclose a drum process.

At the time the present invention was made, a person skilled in the art would not have combined the teachings of Humphrey et al and the Japanese Reference, since applying a drum process to brittle cores, such as amorphous and nanocrystalline cores, would result in damage to the cores, for example breaking and splintering. The inventors recognized the advantages of the drum process for coating is achieved by especially adapting the drum process, for example by reducing the rotational speed and choosing a certain filling factor for the cores.

The subject matter of independent claim 5 is not taught by the combination, since there is no teaching or suggestion for combining the teachings of Humphrey et al with the Japanese Reference without relying applicant's disclosure to suggest the combination. In other words, it is submitted that the combination is based solely on hindsight and is, therefore, an improper combination of the prior art.

In addition, it is submitted that the combination does not teach or suggest providing a plurality of tape-wound cores composed of tape selected from amorphous and nanocrystalline alloys with the cores having a filling factor of between 70% and 90%, providing the rotational drum container, inserting the plurality of toroidal tape-wound cores into the container while rotating the drum at a rate of 1 to 5 rotations per minute creating a vacuum in the drum container and introducing a vapor of the coating material into the drum to condense on the surfaces of the core and then polymerizing the monomer at the surfaces. It is submitted that the subject matter of claim 5 is not taught by the combination and that the claim is allowable.

It is submitted that claim 6 is patentable over the combination, even if it is further modified by the teachings of Hatch, since Hatch does not disclosure the deficiencies noted with regard to claim 5. It is also submitted that Hatch is in completely non-analogous art, since it is coating not using a drum process and is not coating toroidal cores. Thus, it is submitted that claim 6 is also patentable over the prior art and is allowable.

Claim 7 is dependent on claim 5 and further highlights the invention, since the step of providing the rotating drum container includes providing magnets in the container to collect chips and splinters from the cores. There is no teaching or suggestion in the references of such a step. Therefore, it is submitted that claim 7 is clearly patentable over the prior art and is allowable.

Claim 8 is dependent on claim 5 and further highlights that cleaning the core is before inserting to remove any splinters and chips, which is a feature that is not suggested by any of the references of record. Claim 9 is dependent on claim 8 and further highlights the method providing a pre-coating of the cores with a coupling agent after the cleaning step. Claim 10 is dependent on claim 9 and further recites that the coupling agent is silane. It is submitted that none of the references of record teach these additional features and, therefore, claims 8-10 are clearly patentable over the prior art and are allowable.

In view of the amendments and explanations contained hereinabove, it is respectfully submitted that this application is now in condition for immediate formal allowance and further reconsideration to that end is earnestly solicited.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450 on August 28, 2003.

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Date